Remarks/Arguments

Applicants disagree with the Examiner's restriction requirement, as set forth in the Office Action. However, in view of applicants canceling all of the prior claims and submitting a new set of claims 23 to 39, as discussed below, applicants submit that this issue is moot.

The specification is being amended to delete the embedded hyperlink designation, as required by the Examiner, and also to correct minor errors therein.

The new claims have been drawn with the Examiner's objection, 35 USC 112, second paragraph, of the prior claims in mind. Applicants submit that the present claims contain no issues of indefiniteness.

The prior elected claims were rejected as anticipated, 35 USC 102(e), by Kung et al patent 6,671,262 (hereinafter "Kung"). However, applicants respectfully submit that their invention is neither anticipated by nor obvious from the Kung teaching and disclosure.

The Kung conferencing arrangement and architecture are network-centric with all of the key architectural components, including the Kung conference manager (CM) and conference server (CS) operating on a network element, identified as the IP Central Station (200). In Kung the conference user telephones, as clearly seen in Fig. 9, are dumb elements isolated from the network elements by broadband residential gateways (BRG). Applicants' invention is just the opposite of this network centered or smart network approach with dumb terminal or user equipment. In applicants' invention the major components live on the edge of the network.

This distinction is most clearly seen in one essential aspect of applicants' invention, namely that the mixing of the media streams for a user's participation in a conference, whether an audio or text conference or both, is done by the client process device of each conference participant. This is in contrast to the Kung disclosure and teaching wherein, consistent with the smart network centered architecture of Kung, it is the function of the conference server (CS) in the network elements to multiplex or mix simultaneous media streams from multiple participants. The result is that in Kung a new stream is sent to other participants. For example, in a voice conference with participants A, B, and C, if A and B are talking at the same time, in Kung respective sequences of IP packets containing their voice payloads are sent to the CS which then performs a multiplexing operation to create the a new sequence of IP packets with voice payloads from both A and B, which new sequence is sent to C.

In contrast to this teaching and disclosure of Kung, in applicants' invention the responsibility and function of mixing multiple voice streams are performed by the Client

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process of each conference participant. Thus, in the above cited example, voice packets from A and B are separately sent to a conference server which simply routes them to C. C receives the two separate streams of voices and then the Client process at C mixes the received streams and provides the mixed stream to the user or participant C.

In accordance with applicants' invention, the amount of processing required on the conference server is greatly reduced, which increases the scalability of the entire system.

Applicants' invention provides further advantageous functions and operations not available with the Kung architecture. In Kung, once a conference is created, the media type, e.g., voice, text or video, to be used in the conference is locked in. For example, if a voice conference is created, it cannot also be used for text messages. Instead a new conference would have to be separately created by the conference participants. In contrast in accordance with applicants' invention, multiple media types can be used at the same time in a given conference, with the old and new conferences being managed as one conference. For example, when the new conference is created for the new media type, all of the members of the old conference are automatically invited in.

Applicants' inventive conferencing arrangement also enables comprehensive security, including not only user/message authentication (which is available in Kung) but also message confidentiality and integrity, whereby user identities and communication payloads are protected from eavesdroppers and other malicious attacks, even in networks where a small fraction of communication messages happen to be delayed.

In applying applicants' prior claims to the Kung disclosure the Examiner had cited that in Kung a conference server and a routing server are located within a network. But, as pointed out above, the Kung architecture is smart network oriented, whereas in applicants' invention, as stated at page 4, lines 29-31, a "system 100 comprises a distributed two-tiered client-server system: the control server's tier 110 and the communications server's tier 120". Further the Examiner had referred to Kung column 18, lines 39-46, for client software application. What is described at that paragraph of the Kung patent is simply that the Kung residential gateway may provide other media devices in addition to a telephone. This has no relevance to applicants' client process associated with each user, which process mixes the communications from a plurality of conference participants.

Further, applicants respectfully suggest that the Examiner is in error in indicating, with reference to prior claim 6, that Kung discloses, at column 30, lines 20-29, a mixing means located with each of the clients. Instead, consistent with the Kung architecture which is network centered, what is described there is the mixing by Kung's CS 224, which is specifically not within each of the clients or associated with each client or user.

New claim 23 specifically recites applicants' inventive method including the client process associated with the user mixing the communications from a plurality of conference participants. Each of claims 24 to 34 is dependent, directly or indirectly on claim 23, and recites further steps made available by applicants' inventive combination set forth in new claim 23. For example, in new claim 27, applicants' method further comprises the client process enabling the simultaneous participation in more than conference and the proactive notification to one or more other users of any changes to a conference. New claim 28 further recites aspects of applicants' novel method including providing security and specifically including the step of a security process within the client process obtaining a conference session key, as therein recited. New claims 31 and 32 further recite applicants' method including when a user is participating on a conference involving one media device, the user's client process establishing a second conference call involving a different user media device and inviting all the participants in the prior established conference to join the new conference, as therein recited.

New claim 35 is an apparatus claim directed to applicants' inventive system, with new dependent claims 36 and 37 reciting the PSTN gateway proxy server and elements of the system associated therewith. New claim 38, also dependent on new claim 35, adds that one of the router servers is a smart application server for establishing an application sharing conference.

New system claim 39 is different from new system claim 35 in that it specifically recites the two server tiers, namely a control server tier and a communications server tier, of applicants' invention together with the client process associated with each of the users for mixing the communications from a plurality of conference participants.

Favorable consideration and allowance of new claims 23 to 39 are therefore respectfully requested.

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     It is believed that this application is now in condition to be passed to issue, and such action is also respectfully requested. However, if the Examiner considers it would in any way expedite the allowance of the application, the Examiner is invited to telephone applicants' attorney at the number set forth below.

<div align="center">Respectfully submitted,</div>

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